

ABSTRACT OF THE DISCLOSURE

The present invention is directed to a scanning apparatus and method for processing a substrate, wherein the scanning apparatus comprises a base portion and a rotary subsystem. The rotary subsystem comprises a first link comprising a first joint, wherein the first link is rotatably coupled to the base portion by the first joint, and a second link comprising a second joint, wherein the second link is rotatably coupled to the first link by the second joint. The first joint and the second joint are spaced a predetermined distance from one another.

5 The second link further comprising an end effector whereon the substrate resides, and wherein the end effector is operably coupled to the second link. The end effector is further spaced from the second joint by the predetermined distance, wherein a rotation of the first link and second link in a respective first direction and second direction is operable to linearly oscillate the end effector

10 along a linear first scan path, and wherein the rotational velocity of the first link and second link does not cross zero.

15